## SIGNATURE PAGE

**Title:** CERCLA Site Re-Assessment for St. Louis Auto Shredding Incorporated.

**Preparer:** Kenneth W. Corkill, Project Manager, Office of Site Evaluation, Illinois Environmental Protection Agency

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Signature

10-8-14
Date

**Approval:** Patrick Hamblin, Site Assessment Manager, United States Environmental Protection Agency, Region 5

Signature

10/10/14
Date

*The approval signatures on this page indicate that this document has been authorized for information release to the public through appropriate channels. No other forms or signatures are required to document this information release.*

LPC# 1630450001 St. Clair County
St. Louis Auto Shredding Incorporated - East St. Louis
ILD 984 767 392
SF/HRS

# CERCLA Site Reassessment

Prepared by:
Office of Site Evaluation
Division of Remediation Management
Bureau of Land

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# SITE REASSESSMENT

for:

## ST. LOUIS AUTO SHREDDING INCORPORATED
## EAST ST. LOUIS, ILLINOIS

ILD 984767392

PREPARED BY:
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF LAND
REMEDIAL PROJECT MANAGEMENT SECTION
OFFICE OF SITE EVALUATION

November 6, 2014

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## APPENDICES

## 1.0 Introduction

In October 2009, the Illinois Environmental Protection Agency's (IEPA) Office of Site Evaluation (OSE) was tasked by the Region V Offices of United States Environmental Protection Agency (U.S. EPA) to conduct a Site Reassessment at St. Louis Auto Shredding Incorporated (SLAS) (ILD984767392) located at 1200 N. First Street, East St. Louis, Illinois. A portion of the Site Reassessment will include investigating groundwater at SCA Milam Landfill (a.k.a.: Milam Recycling and Disposal Facility (RDF)) (ILT180014961) identified, at the present time, by association due to concerns of SLAS that Milam is a source of groundwater contamination found at SLAS. IEPA's OSE was requested by IEPA's Bureau Of Land Groundwater Assurance Unit to advance four groundwater sampling devices to bedrock (100 feet below ground surface), two on SLAS property and two along the west perimeter of the Milam facility to determine if contamination of groundwater exists. If contaminants are detected in the Milam samples are the compounds those present in samples collected from groundwater dewatering wells near the SLAS facility. The SLAS facility property is located immediately west of the former Gateway International Raceway in East St. Louis. This site is located in Section 6, Township 2 North, Range 9 West of the Third Principal Meridian. Specifically the property can be found at latitude 38.6496 North, longitude -90.1413 West, in Canteen Township, St. Clair County (Figure 1).

U.S. EPA authorized a Site Reassessment to be conducted to determine the current status of the St. Louis Auto Shredding facility. This Site Reassessment will consist of an evaluation of recent information to determine if further Superfund investigation is warranted. The reassessment will supplement previous assessment work, and is not intended to replace previous CERCLA assessments.

The Site Reassessment is designed to provide necessary information that will help determine if the site qualifies for possible inclusion on the National Priorities List, or should receive a No Further Remedial Action Planned (NFRAP) designation. At the end of the reassessment process the author will recommend that the site may be given a NFRAP designation, receive further Superfund investigation, or be referred to another state or federal clean-up program. The Site Reassessment is performed under the authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) commonly known as Superfund.

The St. Louis Auto Shredding facility was placed on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERLCIS) in September 21, 1993. On April 4, 1994, U.S. EPA completed a Preliminary Assessment of the site. On December 12, 1996 U.S. EPA archived the site (indicating that a decision was made that no further activity was planned at the site). In September 2003, an inspection completed by IEPA found that waste material was stored in an area of the business not permitted by the IEPA as a landfill. On April 30, 2003 U.S. EPA issued an Administrative Order on Consent. A time-critical removal action conducted by the responsible party began June 14, 2004 and was completed on February 6, 2007. The Site Reassessment Report will describe current site conditions and illustrate how the site has changed since the initial CERCLA preliminary assessment. This report will contain a review of existing information to determine site history, current site conditions, and evaluate analytical data that may exist on the site. The Site Reassessment will also support emergency response or time-critical removal activities if it is determined that they are warranted.

## 2.0 Site Description and History

### 2.1 Site Description

The SLAS site (National City Environmental, LLC property) is located immediately west of the former Gateway International Raceway in East St. Louis (Figure 2). The Milam Landfill site is located approximately 1000 feet east of the racetrack. The subject properties are situated in Section 6 & 7, Township 2 North. – Range 9 West and in Section 1, Township 2 North – Range 10 West, St. Clair County. The general location by latitude and longitude for SLAS is Latitude 38.6496N, Longitude -90.1413W, in Canteen Township, St. Clair County. The general location by latitude and longitude for Milam is Latitude 38.6559N, Longitude -90.1233W, in Canteen Township, St. Clair County. The properties occupy approximately 150 acres at each location. The sites are located in an urban/industrial setting with medium density residential, light to heavy industrial, and various commercial areas scattered throughout the area. Each location also has office/operations buildings on site. The SLAS Property Identification Number (PIN) is 23-30-200-003-0080.

The SLAS facility is owned by National City Environmental and National City Recycling. Operations at the facility consist of auto shredding, which creates "auto fluff", and shredding of household appliances. Salvageable metal is recycled while other byproducts of shredding, such as plastic, vinyl, fabric and other material, has been/is land filled on site at one of two landfill units located between a set of unnamed railroad tracks (3 tracks) on the west and Schoenberger Creek to the east (Figure 4). IEPA Field Operations Section (FOS) has conducted quarterly facility inspections at SLAS and has estimated the volume of auto fluff at approximately 175,000 – 200,000 cubic yards. The shredder operation began in the early 1970s. Bordering the

SLAS property to the north is the Cahokia Canal, beyond which is a golf course, other businesses, open ground, and a small parcel of property (formerly containing twenty-seven (27) 55-gallon drums of paint waste, PCBs, VOCs, PNAs, lead, and arsenic subsequently removed by SLAS in April 1996) owned by SLAS (National City Environmental). East of the SLAS property is the former Gateway International Raceway. South and west of SLAS are other associated SLAS maintenance facilities. Bordering the Milam property to the north is the Cahokia Canal, beyond which is open ground. East of Milam is open ground and wetlands. South of Milam is a truck stop and I-55. Immediately west of Milam is open ground, beyond which is State Route 203, beyond Route 203 is former Gateway International Raceway (Figure 4). Residential properties (Figure 2) are located approximately 1000 feet to the west-southwest of the SLAS property and 4500 feet south of the Milam property.

Topography of the area surrounding the facility is generally flat with slight undulations throughout (Figure 3). Historically, much of this area is subject to surface water flooding and retention due to being in the American Bottoms and high clay content of the soil resulting in numerous wetlands. Many properties have been "built up" by filling to avoid constant flooding. Drainage channels have been constructed throughout the region to assist in dewatering and channeling water from properties. The SLAS facility itself is generally flat with no discernible slope other than associated with various undulations. Similar to surrounding property, SLAS property also consists of numerous wetland areas. Surface elevation at the SLAS facility is approximately 405 feet above mean sea level (MSL). Geology beneath SLAS and Milam, according to United States Geological Survey (USGS), Illinois State Geological Survey (ISGS), & Illinois Department of Transportation (IDOT) groundwater well logs, consists of various varieties of clay from approximately 5 feet to 19 feet below ground surface (bgs). Some logs

also indicate traces of clay to 35 feet bgs. Fine to coarse grain sand, and fine to coarse gravel exist from 19 feet to 100 feet bgs. Limestone bedrock has been encountered between 100 feet and 115 feet bgs. Wells adjacent to and on the SLAS facility exhibited a water bearing sand and gravel unit from 85 feet to 100 feet bgs with static water levels between 10 feet and 35 feet bgs. Geology is further defined as relatively flat terrain of the Mississippi River flood plain referred to as the American Bottoms. Geology of the area consists of the American Bottoms, containing unconsolidated valley fill deposits composed of Cahokia Alluvium, overlying glacial till material of the Henry Formation. The glacial till is underlain by Mississippian age limestone and dolomite bedrock with minor layers of sandstone and shale interbedded. The Cahokia Alluvium includes the deposits in the floodplain and channels of rivers and streams throughout the state. The direction of groundwater flow in the American Bottoms area varies, reflecting changes of river stages. During normal stages groundwater flows toward the river. During high water or flood stages groundwater flows away from the river.

Residents and businesses in the vicinity of SLAS and communities of Venice, Madison, Fairmont City and East St. Louis (among others) obtain their drinking water from the Illinois American Water System which utilizes an intake in the Mississippi River approximately five miles upstream of the I-55/I-64/I-70 Bridge (Poplar St. Bridge - which crosses the Mississippi River from Illinois to Missouri). There are, however, a few individuals in the surrounding area still using groundwater wells. In what capacity is not known at this writing. According to IEPA's Source Water Assessment Program (SWAP) database, and consultation with the Illinois State Geological Survey (ISGS), the Illinois State Water Survey (ISWS), and the IEPA's Division of Public Water Supplies, the nearest private drinking water well was located approximately 50 feet north of SLAS with a total depth of 70 feet below ground surface serving

Gateway National Golf Links. However, this well was abandoned in approximately 1985. The next closest private drinking water well is located approximately 3200 feet northwest of SLAS property with a total depth of 80 feet bgs. At the time of this writing, it is not confirmed that this well is currently in operation. .

Surface water from the SLAS property flows in several directions. The property has drainage ditches along the respective property boundaries. Generally, any rainfall or snow melt not near the peripheral areas of SLAS will remain on the facility and either evaporate, percolate into the soil, or remain on the ground surface contributing to wetland areas. Surface water runoff from the peripheral areas of the property flow into the drainage ditches. Lansdowne Ditch flows west along the south end of the property, Schoenberger Creek flows north along the west side of the property to Cahokia Creek. Cahokia Creek then flows west into the Mississippi River. According to National Wetland Inventory Maps (NWI), all drainage, including Cahokia Creek, is considered intermittent, however, observations of Cahokia Creek throughout the four seasons indicate there is permanent standing or flowing water in this drainage channel. All other drainage ditches, indicated by the Wetland Maps as intermittent, are as classified (Figure 6).

Structures on the SLAS property consist of two large buildings and a small satellite building adjacent to the two large buildings. All buildings are located west of the southwest corner of the landfill portion of the property, west of the railroad tracks. One of the large buildings is used as a maintenance shop, and storage of machinery, equipment and vehicles. The other large building houses the main office, employee locker room and general warehouse storage building. The smaller buildings consist of additional maintenance facilities. The shredder is located south of the office building.

2.2 Operational History

The St. Louis Auto Shredding facility was in the beginning stages of development in 1973 as Chicago Title Insurance Company conducted a title search and issued insurance on approximately 310 acres of generally level field in the American Bottoms, protected by a levee system. The property was agricultural with poor drainage and included a hog farm on the far west portion of the property. The owner of record at the time of purchase was Irv Pielet, the business name was Pielet Bros. Trading Company. In 1976 a permit application for development of a landfill on the property was submitted to the IEPA. The application was approved. The business operation consisted of an on-site shredder which shredded household white goods, other metals, and vehicles. The current operation remains the same as it was previously. The name of the operation has changed over the years. From Pielet Bros. Trading Co. the name became National City Environmental, LLC, c/o Pielet Brothers Trading, Inc. The name then changed to St. Louis Auto Shredding, with the legal operator being National City Recycling, LLC. Ownership, however, remains the Pielet family. As stated previously, two landfill units have been/currently operate as recipients of waste auto fluff. The southeast unit is closed. The northwest unit is currently active and classified as non-hazardous waste. This unit is operated under the regulations of Resource Conservation and Recovery Act ( RCRA) – Subtitle D. The property east of Schoenberger Creek and west of the former Gateway International Race Track has never been developed. The only activity on this portion of the property has been heavy machinery engaging in earth moving operations.

## 2.3 CERCLA Investigative History

St. Louis Auto Shredding was placed on CERCLIS as a Site Discovery in October 21, 1993. A Preliminary Assessment was conducted at the facility and completed on April 5, 1994. The site was archived by U.S. EPA on December 12, 1996. Permit application processes have been conducted during the time frame of 1976 through the current date. Numerous field inspections have been conducted by IEPA Field Operation Section (FOS) personnel throughout the same time frame. Various inspection violations, such as lack of daily cover, daily waste volume exceedances of auto fluff, and groundwater quality exceedances, have been noted and presented to the site owner and site operator throughout the course of site operations. Many violations and/or deficiencies have been and/or are being resolved. A field inspection conducted by FOS on February 9, 1993 discovered twenty-seven (27) 55-gallon drums of paint waste and PCBs north of Cahokia Creek on a small portion of SLAS property immediately adjacent to the creek. Analysis of samples of drum contents collected during the inspection indicated the presence of VOCs, including tetrachloroethene, benzene, and nitrobenzene; PNAs including 4-methylphenol; arsenic and lead. The drums were removed by SLAS, as the responsible party, during April 1996. On April 30, 2003 an Administrative Order on Consent was issued to SLAS. A Potentially Responsible Party Removal Action (to remove auto fluff) was begun on June 14, 2004 and completed February 6, 2007.

## 3.0 Other Cleanup Authority Activities

As stated above, St. Louis Auto Shredding Incorporated had removal actions take place in April 1996 on the small parcel of property north of Cahokia Creek to remove twenty-seven (27) 55-gallon drums of paint waste and PCBs, and June 2004 to remove contaminated soil (POLREP attached in Appendicies).

## 4.0 Site Reassessment Field Activities

### 4.1 Sampling Activities

For a number of years SLAS has indicated that they are not the party causing the contaminants found in area groundwater. SLAS suspects that Milam Landfill or Terminal Railroad roundhouse operations and subsequent spills are the party or parties responsible for the contaminated groundwater. On the other hand, Milam Landfill operators have suggested it is SLAS causing the contamination. Subsequently, the IEPA's BOL Groundwater Assurance Unit (GAU) requested the assistance of IEPA's OSE Unit to use the IEPA's Geoprobe to advance a Screen Point 16 groundwater sampling device to near bed rock (approximately 100' bgs) at two locations on SLAS property (the undeveloped land between Schoenberger Creek and the former Gateway International Raceway) and two locations on Milam Landfill property (at the far west edge of Milam property) immediately west of the western extent of fill (Figure 5). Collecting groundwater samples at the described locations and at the 100 foot depth will assist in determining where the contaminants are originating. As requested by IEPA's GAU, during the week of November 22, 2010, IEPA's OSE unit conducted a limited groundwater investigation at the two indicated facilities. The Screen Point device was advanced to 100 feet bgs at three locations and to 99 feet at location GW-2 due to refusal. Once the device was at depth the rod string was retracted four feet to expose a four foot long stainless steel screen. Groundwater level was allowed to stabilize prior to measurement and prior to low flow purging of the water within the rod string. Polyethylene tubing was inserted to depth through the hollow Geoprobe rods. Low flow purging was accomplished by use of a stainless steel check valve attached to the end of the tubing at depth. A reciprocating pumping action applied to the tubing brought water to the surface where it was collected for groundwater parameter measurements of temperature,

conductivity, and pH. In addition, at least three well volumes were purged from each location while measuring the groundwater parameters. Once the necessary volume was purged and the groundwater parameters were stabilized, groundwater samples were collected in glass containers.

4.2 Analytical Results

The scope of work for this sampling event called for collection of VOC's only. Samples at each location were collected in three - 40ml glass vials. Analysis was completed by the Illinois EPA laboratory using Method 8260. Groundwater analytical results indicated a concentration of 2.2 ug/L vinyl chloride and 15 ug/L cis-1,2-dichloroethene in GW-1 and GW-1A (duplicate of GW-1), and 2.7 ug/L carbon disulfide in GW-3. Groundwater analytical results were compared to the Tier 1 Groundwater Remediation Objectives (ROs) for Class 1 groundwater. The comparison indicates that the concentration of cis-1,2-dichloroethene in GW-1 and the concentration of carbon disulfide in GW-3 do not exceed Illinois EPA 35 IAC, Part 742 Tiered Approach to Corrective Action Objectives (TACO) Tier 1, Class I Groundwater ROs (RO for Class I groundwater for carbon disulfide is 700 ug/L, cis-1,2-dichloroethene is 70 ug/L), however, the concentration of vinyl chloride does exceed the RO for Class I Groundwater by 0.2 ug/L (RO for vinyl chloride is 2.0 ug/L). No further TACO evaluations have been conducted at the facility at this time.

## 5.0 Source Discussion and Pathway Analysis

### 5.1 Source Summary

Information obtained through reassessment activities has indicated that groundwater contamination is present at a depth of 96 feet to 100 feet below ground surface at one of two locations at the SLAS property and also at one of two locations at the Milam Landfill. Groundwater contaminants such as those found at the noted depths surrounding the SLAS facility could potentially come from any facility in the area. Milam Landfill, SLAS, the truck stop east of Gateway International Raceway, or various other businesses and facilities (current & no longer present) has the potential to be the contributor of the contaminants detected. At this writing the author has no determination of groundwater flow in this localized area.

### 5.2 Groundwater Migration Pathway

Communities surrounding the SLAS facility have groundwater ordinances in place prohibiting the use of and/or the installation of potable water wells or water systems. The ordinances were put in place between 2000 and 2010. No exposure via direct ingestion of groundwater exists as there are no drinking water wells on or adjacent to the facility.

### 5.3 Surface Water Migration Pathway

As stated in Section 2.1, the majority of precipitation not near the peripheral areas of the property will remain on the property. Precipitation run-off from the peripheral areas of SLAS migrates into drainage ditches on the south (Landsdown Ditch) and west (Schoenberger Creek) of the property. There is no obvious or defined location of a probable point of entry (PPE) to the surface water route along the noted drainage ditches. Therefore, the author is determining the

confluence of the west drainage ditch (Schoenberger Creek) with Cahokia Creek as the PPE. From the PPE Cahokia Creek flows 2.11 miles to the Mississippi River. NWI Maps indicate approximately 70 acres of wetland exist on SLAS property as palustrine, emergent, temporarily flooded (PEMA), palustrine, emergent, seasonally flooded (PEMC), and palustrine, emergent, semi-permanently flooded (PEMF). Cahokia Creek is classified as riverine, lower perennial, unconsolidated bottom, permanently flooded, excavated (R2UBHx) along its entirety from the SLAS property to the Mississippi River. No wetlands are classified within its banks downstream of SLAS. The nearest wetland downstream of SLAS is 1.3 miles downstream of the confluence of Cahokia Creek with the Mississippi River on its east bank, just north of Interstate 70. This wetland is classified as PEMA. According to Illinois EPA's SWAP database there are no known surface water intakes located downstream of the facility. Therefore, the surface water migration pathway is not considered a pathway of concern for the SLAS site.

5.4 Soil Exposure Pathway

There are no fences around the SLAS property. However, the steep sided, deep, wide drainage ditches and heavy underbrush surrounding the property are significant features deterring trespassers. It is still possible that trespassers could gain access to the property, but with great difficulty. The only vehicle access point is located near the southwest corner of the SLAS property and is restricted by locking gate.

Residential properties (Figure 2) are located approximately 1000 feet to the west-southwest of the SLAS property and 4500 feet south of the Milam property. The closest occupied structure to the SLAS property is the SLAS operations building located on-site. The closest occupied structure to the Milam property is the Milam office building located on site.

The nearest business with workers present (for both properties) is SLAS and Milam. SLAS employs between 5 and 10 workers. The number of workers employed by Milam is not known at this writing. No schools or daycare facilities are within 200 feet of either of the properties.

The soil exposure pathway is not considered significant.

## 6.0 Summary and Conclusions

The November 2010 investigation at the SLAS facility indicated the presence of contaminants in groundwater. Contaminants of concern are cis-1,2-dichloroethene, chlorobenzene, and vinyl chloride. At this point, these contaminants are not attributable to any facility or individual. Sample results from the November 22 – 24, 2010 groundwater investigation have been supplied to the IEPA's GAU for their evaluation and subsequent action. Based on past investigations at SLAS, monitoring data, and a Tier 1 TACO evaluation for the facility, groundwater impacts are indicated to be limited to the site. Groundwater analytical results indicate a concentration of 2.2 ug/L vinyl chloride and 15 ug/L cis-1,2-dichloroethene in GW-1 and GW-1A (duplicate of GW-1), and 2.7 ug/L carbon disulfide in GW-3. These results were compared to the Tier 1 Groundwater (ROs) for Class 1 groundwater. The comparison indicates that the concentration of cis-1,2-dichloroethene in GW-1 and the concentration of carbon disulfide in GW-3 do not exceed Illinois EPA 35 IAC, Part 742 Tiered Approach to Corrective Action Objectives (TACO) Tier 1, Class I Groundwater ROs (RO for Class I groundwater for cis-1,2-dichloroethene is 70 ug/L, carbon disulfide is 700 ug/L,), however, the concentration of vinyl chloride does exceed the RO for Class I Groundwater by 0.2 ug/L (RO for vinyl chloride is 2.0 ug/L). Although vinyl chloride exceeds the RO in groundwater samples collected from a depth of 96 to 100 feet, it is unlikely there is a threat to human health or the environment due to local groundwater use ordinances and the absence of wells adjacent to the site.

# FIGURES and TABLES

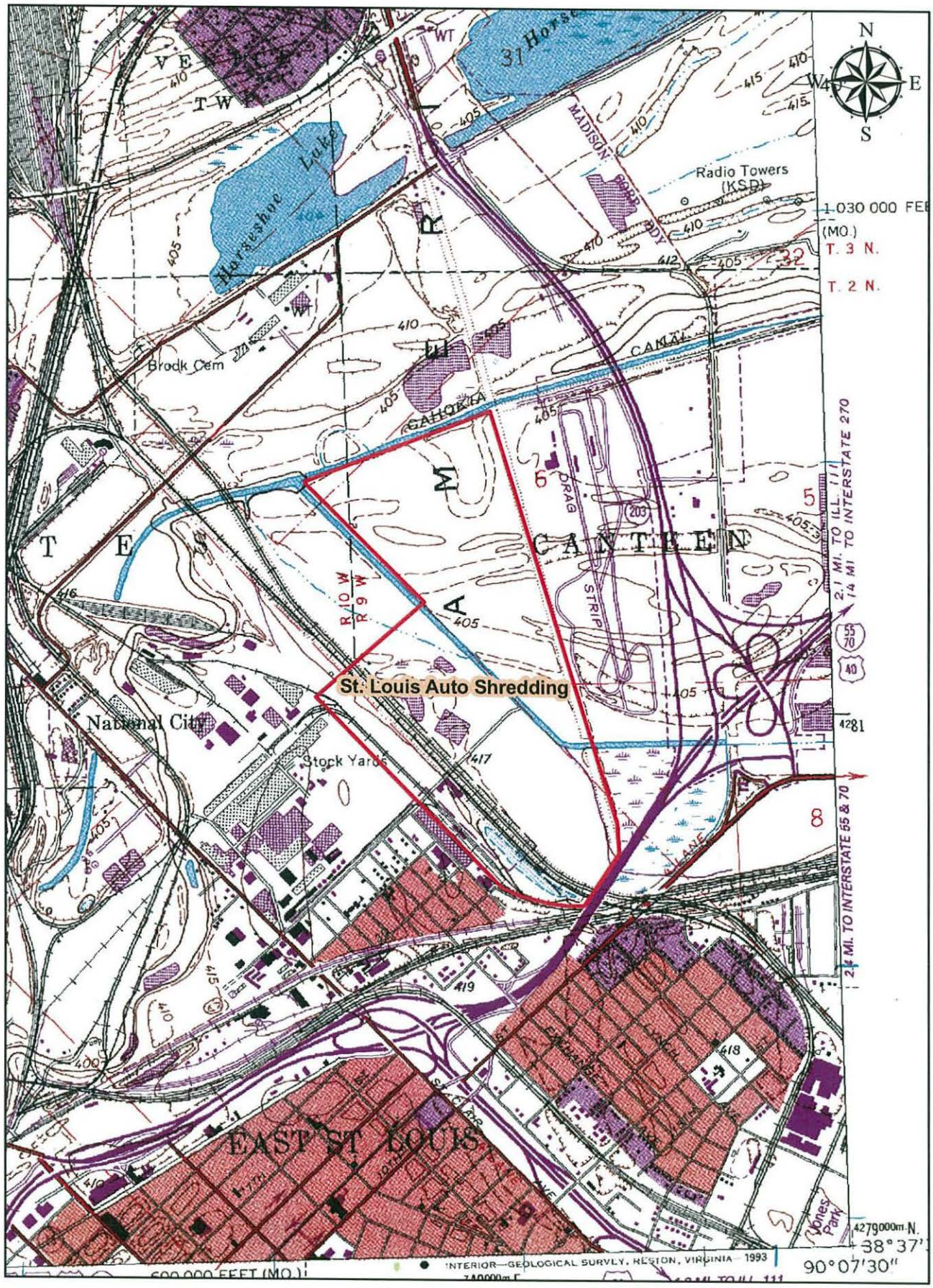

**St Louis Auto Shredding Inc.**

Site Location Map

Figure 1


SLAS and Surrounding Area Map

Figure 2




SLAS Site Topographic Map

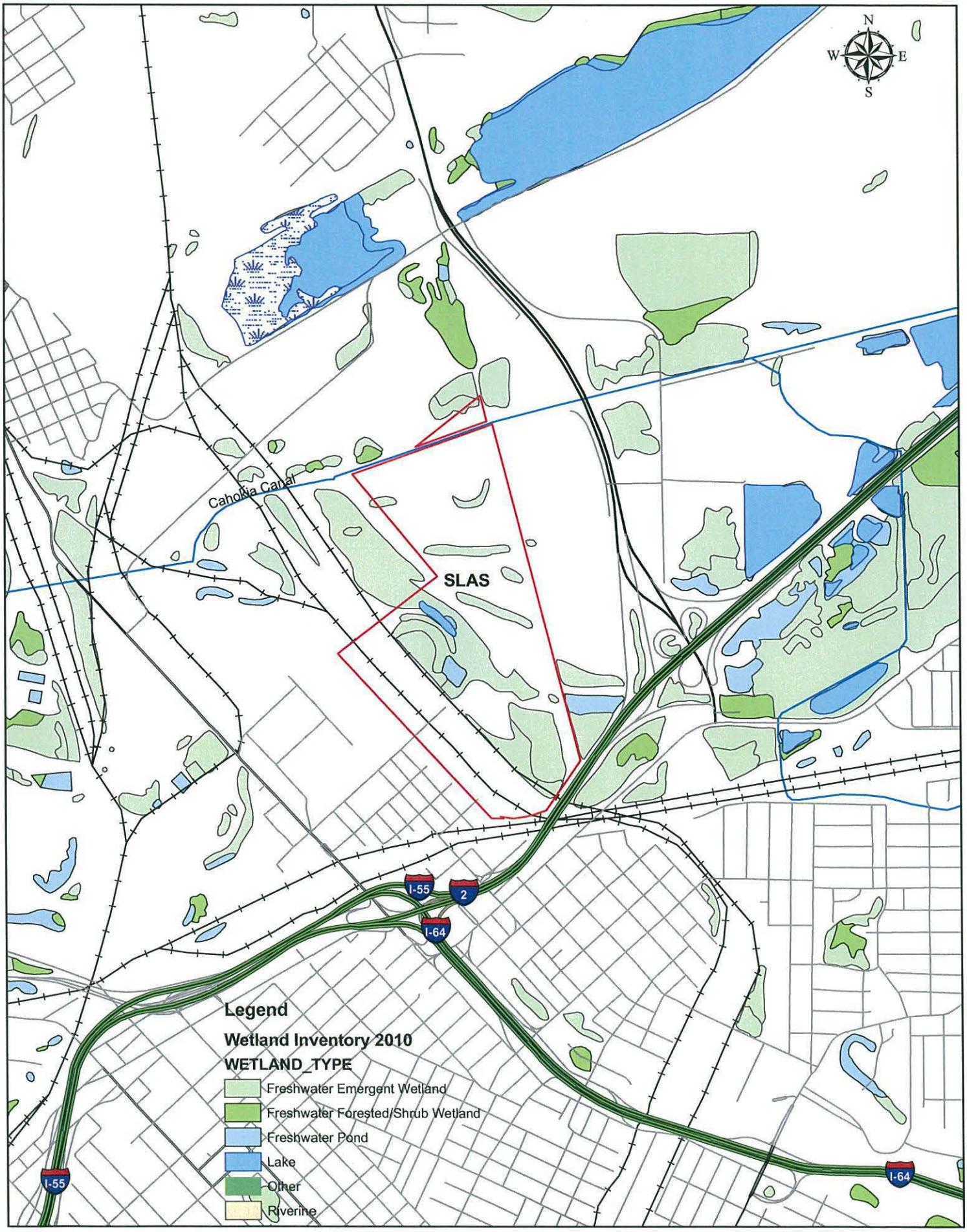
Figure 3


SLAS Property Map

Figure 4

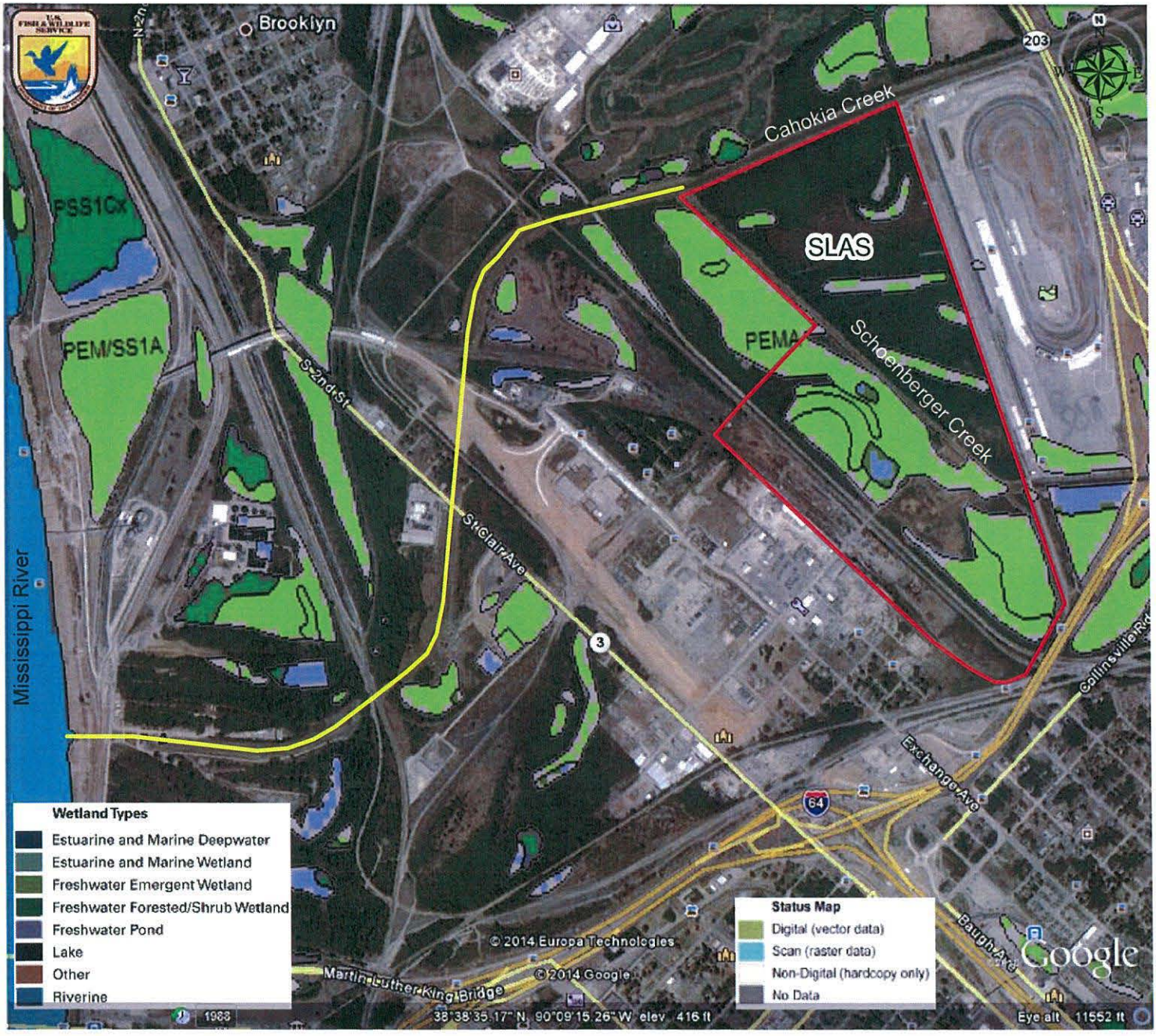

November 22 - 25, 2010 Groundwater Sample Locations

Figure 5




Wetland I.D. Map of Wetlands on & near SLAS

Figure 6




**SLAS Wetlands and Cahokia Creek Area**

Figure 6A

## St. Louis Auto Shredding, Inc

East St. Louis, Illinois

TABLE 1

**Analytical Results (Qualified Data)**

Case #:
Site : St. Louis Auto Shredding
Lab. : Illinois EPA
Reviewer :
Date Received: 11/24/2010

| Sample Number : | USEPA | TACO | Reporting | GW-1 | | GW-1A | | GW-2 | | GW-3 | | GW-4 | | Trip Blank | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Location : | Primary | Tier 1 | Limit | Water | | Water | | Water | | Water | | Water | | Water | |
| Matrix : | Drinking | GW | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | |
| Units : | Water | RO's | ug/L | 11/22/2010 | | 11/22/2010 | | 11/22/2010 | | 11/23/2010 | | 11/23/2010 | | 11/23/2010 | |
| Date Sampled : | Standard | for | | 96' - 100' | | 96' -100' | | 95' -99' | | 96' -100' | | 96' -100' | | | |
| Screen Exposed : | MCL's | Class 1 GW | | N/A | | N/A | | N/A | | N/A | | N/A | | N/A | |
| %Moisture : | ug/L | ug/L | | | | | | | | | | | | | |
| pH : | | | | | | | | | | | | | | | |
| Dilution Factor : | | | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | |
| Volatile Compound | | | | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| Chloromethane | | | 2.0 | | | | | | | | | | | | |
| Vinyl chloride | | 2 | 2.0 | 2.2 | | 2.2 | | | | | | | | | |
| Bromomethane | | | 2.0 | | | | | | | | | | | | |
| Chloroethane | | | 2.0 | | | | | | | | | | | | |
| Trichlorofluoromethane | | | 2.0 | | | | | | | | | | | | |
| Acetone | | | 10.0 | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | 2.0 | | | | | | | | | | | | |
| Methylene chloride | | | 5.0 | | | | | | | | | | | | |
| Carbon disulfide | | 700 | 2.0 | | | | | | | 2.7 | | | | | |
| trans-1,2-Dichloroethene | | | 2.0 | | | | | | | | | | | | |
| Methyl tert-butyl ether | | | 2.0 | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | 2.0 | | | | | | | | | | | | |
| 2-Butanone (MEK) | | | 10.0 | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | 70 | 2.0 | 15 | | 15 | | | | | | | | | |
| Bromochloromethane | | | 2.0 | | | | | | | | | | | | |
| Chloroform | | | 2.0 | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | 2.0 | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | 2.0 | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | 2.0 | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | 2.0 | | | | | | | | | | | | |
| Carbon tetrachloride | | | 2.0 | | | | | | | | | | | | |
| Benzene | 5 | | 2.0 | | | | | | | | | | | | |
| Dibromomethane | | | 2.0 | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | 2.0 | | | | | | | | | | | | |
| Trichloroethene | | | 2.0 | | | | | | | | | | | | |
| Bromodichloromethane | | | 2.0 | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | 2.0 | | | | | | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | | | 2.0 | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | 2.0 | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | 2.0 | | | | | | | | | | | | |
| Toluene | | | 2.0 | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | 2.0 | | | | | | | | | | | | |
| 2-Hexanone (MBK) | | | 2.0 | | | | | | | | | | | | |
| Dibromochloromethane | | | 2.0 | | | | | | | | | | | | |
| 1,2-Dibromoethane | | | 2.0 | | | | | | | | | | | | |
| Tetrachloroethene | | | 2.0 | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | 2.0 | | | | | | | | | | | | |
| Chlorobenzene | | | 2.0 | | | | | | | | | | | | |
| Ethylbenzene | | | 2.0 | | | | | | | | | | | | |
| Bromoform | | | 2.0 | | | | | | | | | | | | |
| Styrene | | | 2.0 | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | 2.0 | | | | | | | | | | | | |
| Xylenes, total | | | 2.0 | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | 2.0 | | | | | | | | | | | | |
| Isopropylbenzene | | | 2.0 | | | | | | | | | | | | |
| Bromobenzene | | | 2.0 | | | | | | | | | | | | |

- All blank cells under Results are ND (Non-Detect).
- Results in RED indicate an exceedence of Remediation Objectives

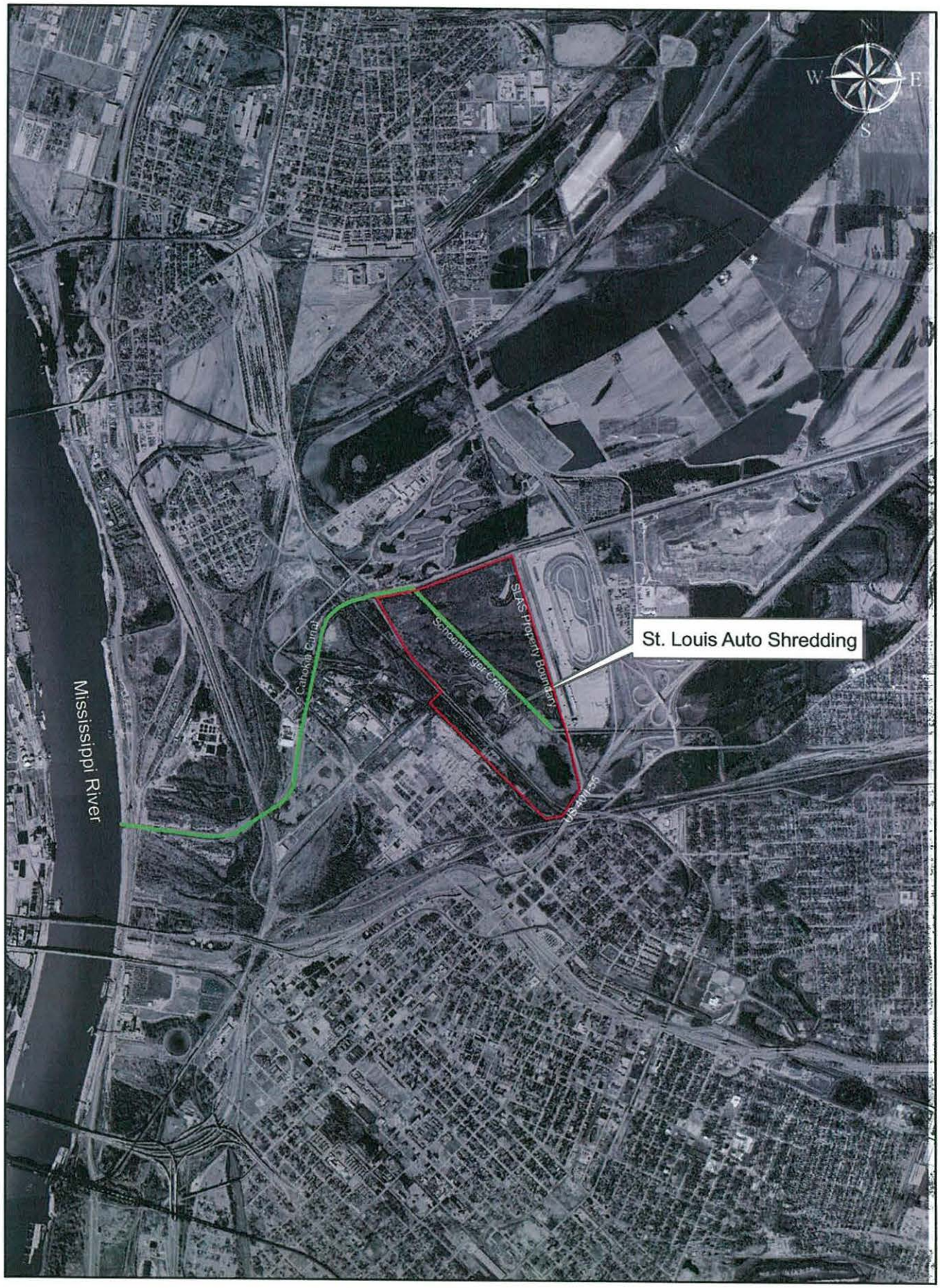
# APPENDIX A

4 - Mile Radius Map

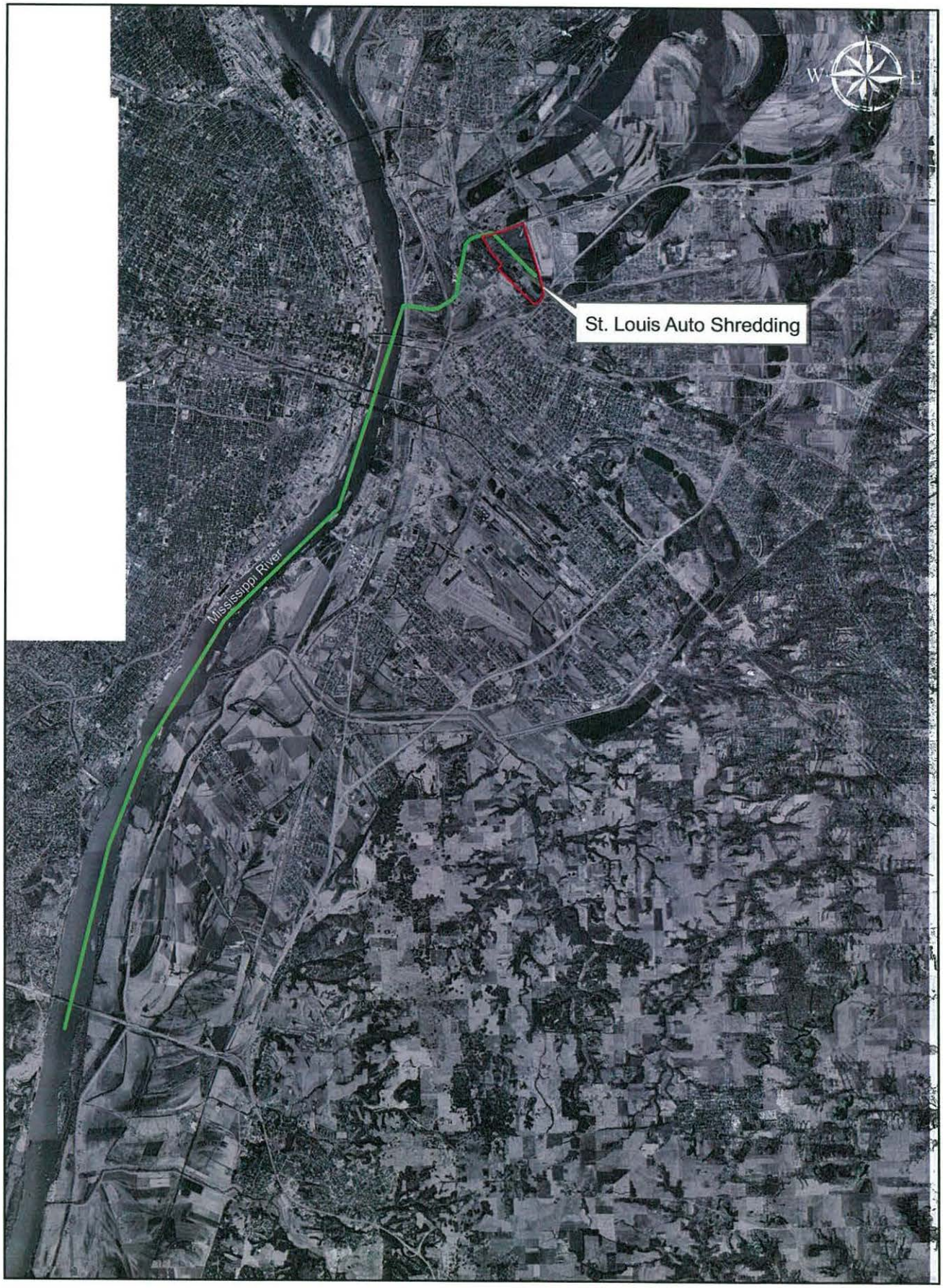

4 Mile Radius Map

# APPENDIX B

15 – Mile Surface Water Map




15 Mile Surface Water Route Map




15 Mile Surface Water Route Map

# APPENDIX C

January 12, 2005

POLREP 2

United States Environmental Protection Agency
Region 5
POLLUTION REPORT



**Date:** Wednesday, January 12, 2005
**From:** Michael Harris, OSC

**To:**
Michael Harris, USEPA
Beverly Kush, USEPA
William Ryczek, USEPA
Virginia Narsete, USEPA
John Maritote, USEPA
Mike Grant, Illinois EPA
Dana Stalcup, USEPA
Bill Bolen, USEPA
Joseph Kawecki, USEPA
Tom Turner, USEPA
Bruce Everetts, Illinois EPA
Tom Binz, Tetra Tech EMI

**Subject:** St. Louis Auto Shredding Drum Disposal
Canteen Township, Madison, IL

| | | | |
|---|---|---|---|
| **POLREP No.:** | 2 | **Site #:** | B5W8 |
| **Reporting Period:** | | **D.O. #:** | |
| **Start Date:** | 6/14/2004 | **Response Authority:** | CERCLA |
| **Mob Date:** | 6/7/2004 | **Response Type:** | TC |
| **Completion Date:** | | **NPL Status:** | Non NPL |
| **CERCLIS ID #:** | ILN000508136 | **Incident Category:** | Removal Assessment |
| **RCRIS ID #:** | | **Contract #** | |

**Site Description**
Site Description

1. Site location

The St. Louis Auto Shredding Drum Disposal Site (□AOC Site□) consists of an approximate 9.73 acre contiguous parcel within the city boundaries of National City, Illinois. The site is bordered by Gateway National Golf Course to the north and east, the Cahokia Canal to the south and undeveloped property to the west.

2. Description of threat

An unspecified amount of PCB□s, paint wastes, solvents and nonhazardous substances remain on-site in the site surface soils. Since the site is undeveloped, not under access control and in close proximity to the Cahokia Canal, the remaining hazardous and non-hazardous substances will be removed by the Performing Respondent identified in the Administrative Order by Consent, Docket No. V-W-04-C-998.

3. Site background

Sometime in early1993, numerous drums of unknown waste materials were discovered by hunters who reported such to the Illinois EPA (IEPA). The IEPA later determined that the legal property owner was St. Louis Auto Shredding (SLAS), a division of Pielet Brothers Trading, Incorporated. That same year, numerous site inspections were conducted by IEPA and Andrews Environmental Engineering.

4. State and local actions to date

In 1996, SLAS completed the removal of 27 drums for off-site disposal under voluntary agreement with the IEPA. This removal effort did not include soil removal or the performance of an investigation to determine the vertical and lateral extent of environmental impacts.

In 1998, the Illinois Department of Transportation (IDOT) tasked the Illinois State Geological Survey and Ecology & Environment (E&E) to conduct a Preliminary Assessment and Site Investigation (PA/SI). The E&E study discovered the presence of volatile organic compounds, semi-volatile organic compounds, PCB□s and heavy metals. IDOT referred the site to the Illinois EPA Site Assessment Unit.

In early 2000, the IEPA conducted an abbreviated site investigation which again found metals and PCB□s near the surrounding wetland area. IEPA in turn referred the site to the United States Environmental Protection Agency (U.S. EPA).

**Current Activities**

Work began on the site on May 19, 2004 with the following:

- The construction of a gravel haul road on the north side of the tree line of the north bank of the Cahokia Canal.

- Site clearing and grubbing activities were performed to allow unfettered access to the contaminated site areas.

- A contamination reduction and hot zone work area along with a 100 foot site grid system was established at the site.

- Soil removal activities commenced on June 14, 2004. However, extensive rainfall

conditions greatly hampered site activities and ultimately the project schedule.

- During the course of removal activities, an average of 4 and 8 truck loads per day of non-hazardous and hazardous waste materials were loaded for delivery to various EPA permitted disposal facilities. Due to the variety of waste streams and compositions, some waste streams were incinerated in accordance with requirements established in RCRA . Please refer to summary provided below related to off-site disposal of waste materials.

- In areas that continue to exhibit greater than 10 ppm concentrations of PCBs, but less than 49 ppm, an orange snow fencing was placed onto the ground surface.

- A minimum of 10-inches of clean soil was placed on top of the excavated area after installation of orange snow fencing. The clean soil is intended to act as a earthen cap/barrier system.

- Assisted with the development of appropriate site institutional controls; including installation of PCB markings along the site perimeter as related to the development of a permanent deed restriction and other related institutional controls.

- The respondent has taken the liberty to remove the temporary access and haul road.

**Planned Removal Actions**

- No additional removal activities are planned at this time.

**Next Steps**

- Coordinate final site restoration activities as directed by the OSC.

- Respondent is required to submit a final summary report. No schedule has been

assigned to this report obligation at this time.

**Key Issues**

- An adjoining parcel to the east appears to have environmental impacts. The OSC plans to conduct a site assessment of the potential waste materials located at the surface.

**Estimated Costs ***

| | Budgeted | Total To Date | Remaining | % Remaining |
|---|---|---|---|---|
| **Extramural Costs** | | | | |
| RST/START | $13,650.00 | $1,228.77 | $12,421.23 | 91.00% |
| **Intramural Costs** | | | | |
| | | | | |
| **Total Site Costs** | $13,650.00 | $1,228.77 | $12,421.23 | 91.00% |

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

www.epaosc.net/StLouisAutoShredding

# APPENDIX D

RA Analytical Results

# Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **GW-1** | Lab Sample ID: | **SK01109-01** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/22/10 13:00 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 11:04 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Chloromethane | ND | Q | 2.0 | |
| **Vinyl chloride** | **2.2** | Q | 2.0 | |
| Bromomethane | ND | Q | 2.0 | |
| Chloroethane | ND | Q | 2.0 | |
| Trichlorofluoromethane | ND | Q | 2.0 | |
| Acetone | ND | Q | 10 | |
| 1,1-Dichloroethene | ND | Q | 2.0 | |
| Methylene chloride | ND | Q | 5.0 | |
| Carbon disulfide | ND | Q | 2.0 | |
| trans-1,2-Dichloroethene | ND | Q | 2.0 | |
| Methyl tert-butyl ether | ND | Q | 2.0 | |
| 1,1-Dichloroethane | ND | Q | 2.0 | |
| 2-Butanone (MEK) * | ND | Q | 10 | |
| **cis-1,2-Dichloroethene** | **15** | Q | 2.0 | |
| Bromochloromethane | ND | Q | 2.0 | |
| Chloroform | ND | Q | 2.0 | |
| 2,2-Dichloropropane | ND | Q | 2.0 | |
| 1,2-Dichloroethane | ND | Q | 2.0 | |
| 1,1,1-Trichloroethane | ND | Q | 2.0 | |
| 1,1-Dichloropropene | ND | Q | 2.0 | |
| Carbon tetrachloride | ND | Q | 2.0 | |
| Benzene | ND | Q | 2.0 | |
| Dibromomethane | ND | Q | 2.0 | |
| 1,2-Dichloropropane | ND | Q | 2.0 | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Test results meet all requirements of NELAC (accredited by Florida DOH #E37645).*

**Reported:**
12/21/10 15:59

# Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **GW-1** | Lab Sample ID: | **SK01109-01** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/22/10 13:00 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 11:04 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Trichloroethene | ND | Q | 2.0 | |
| Bromodichloromethane | ND | Q | 2.0 | |
| cis-1,3-Dichloropropene | ND | Q | 2.0 | |
| 4-Methyl-2-pentanone (MIBK) | ND | Q | 2.0 | |
| trans-1,3-Dichloropropene | ND | Q | 2.0 | |
| 1,1,2-Trichloroethane | ND | Q | 2.0 | |
| Toluene | ND | Q | 2.0 | |
| 1,3-Dichloropropane | ND | Q | 2.0 | |
| 2-Hexanone (MBK) * | ND | Q | 2.0 | |
| Dibromochloromethane | ND | Q | 2.0 | |
| 1,2-Dibromoethane | ND | Q | 2.0 | |
| Tetrachloroethene | ND | Q | 2.0 | |
| 1,1,1,2-Tetrachloroethane | ND | Q | 2.0 | |
| Chlorobenzene | ND | Q | 2.0 | |
| Ethylbenzene | ND | Q | 2.0 | |
| Bromoform | ND | Q | 2.0 | |
| Styrene | ND | Q | 2.0 | |
| 1,1,2,2-Tetrachloroethane | ND | Q | 2.0 | |
| Xylenes, total | ND | Q | 2.0 | |
| 1,2,3-Trichloropropane | ND | Q | 2.0 | |
| Isopropylbenzene | ND | Q | 2.0 | |
| Bromobenzene | ND | Q | 2.0 | |



**Reported:**
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# Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780


## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | GW-1A | Lab Sample ID: | SK01109-02 |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/22/10 13:00 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 11:40 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Chloromethane | ND | Q | 2.0 | |
| **Vinyl chloride** | **2.2** | Q | 2.0 | |
| Bromomethane | ND | Q | 2.0 | |
| Chloroethane | ND | Q | 2.0 | |
| Trichlorofluoromethane | ND | Q | 2.0 | |
| Acetone | ND | Q | 10 | |
| 1,1-Dichloroethene | ND | Q | 2.0 | |
| Methylene chloride | ND | Q | 5.0 | |
| Carbon disulfide | ND | Q | 2.0 | |
| trans-1,2-Dichloroethene | ND | Q | 2.0 | |
| Methyl tert-butyl ether | ND | Q | 2.0 | |
| 1,1-Dichloroethane | ND | Q | 2.0 | |
| 2-Butanone (MEK) * | ND | Q | 10 | |
| **cis-1,2-Dichloroethene** | **15** | Q | 2.0 | |
| Bromochloromethane | ND | Q | 2.0 | |
| Chloroform | ND | Q | 2.0 | |
| 2,2-Dichloropropane | ND | Q | 2.0 | |
| 1,2-Dichloroethane | ND | Q | 2.0 | |
| 1,1,1-Trichloroethane | ND | Q | 2.0 | |
| 1,1-Dichloropropene | ND | Q | 2.0 | |
| Carbon tetrachloride | ND | Q | 2.0 | |
| Benzene | ND | Q | 2.0 | |
| Dibromomethane | ND | Q | 2.0 | |
| 1,2-Dichloropropane | ND | Q | 2.0 | |



**Reported:**
12/21/10 15:59

# Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780


## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **GW-1A** | Lab Sample ID: | **SK01109-02** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/22/10 13:00 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 11:40 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Trichloroethene | ND | Q | 2.0 | |
| Bromodichloromethane | ND | Q | 2.0 | |
| cis-1,3-Dichloropropene | ND | Q | 2.0 | |
| 4-Methyl-2-pentanone (MIBK) | ND | Q | 2.0 | |
| trans-1,3-Dichloropropene | ND | Q | 2.0 | |
| 1,1,2-Trichloroethane | ND | Q | 2.0 | |
| Toluene | ND | Q | 2.0 | |
| 1,3-Dichloropropane | ND | Q | 2.0 | |
| 2-Hexanone (MBK) * | ND | Q | 2.0 | |
| Dibromochloromethane | ND | Q | 2.0 | |
| 1,2-Dibromoethane | ND | Q | 2.0 | |
| Tetrachloroethene | ND | Q | 2.0 | |
| 1,1,1,2-Tetrachloroethane | ND | Q | 2.0 | |
| Chlorobenzene | ND | Q | 2.0 | |
| Ethylbenzene | ND | Q | 2.0 | |
| Bromoform | ND | Q | 2.0 | |
| Styrene | ND | Q | 2.0 | |
| 1,1,2,2-Tetrachloroethane | ND | Q | 2.0 | |
| Xylenes, total | ND | Q | 2.0 | |
| 1,2,3-Trichloropropane | ND | Q | 2.0 | |
| Isopropylbenzene | ND | Q | 2.0 | |
| Bromobenzene | ND | Q | 2.0 | |



**Reported:**
12/21/10 15:59

# Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **GW-2 + QC** | Lab Sample ID: | **SK01109-03** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/22/10 17:10 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 12:15 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Chloromethane | ND | Q | 2.0 | |
| Vinyl chloride | ND | Q | 2.0 | |
| Bromomethane | ND | Q | 2.0 | |
| Chloroethane | ND | Q | 2.0 | |
| Trichlorofluoromethane | ND | Q | 2.0 | |
| Acetone | ND | Q | 10 | |
| 1,1-Dichloroethene | ND | Q | 2.0 | |
| Methylene chloride | ND | Q | 5.0 | |
| Carbon disulfide | ND | Q | 2.0 | |
| trans-1,2-Dichloroethene | ND | Q | 2.0 | |
| Methyl tert-butyl ether | ND | Q | 2.0 | |
| 1,1-Dichloroethane | ND | Q | 2.0 | |
| 2-Butanone (MEK) * | ND | Q | 10 | |
| cis-1,2-Dichloroethene | ND | Q | 2.0 | |
| Bromochloromethane | ND | Q | 2.0 | |
| Chloroform | ND | Q | 2.0 | |
| 2,2-Dichloropropane | ND | Q | 2.0 | |
| 1,2-Dichloroethane | ND | Q | 2.0 | |
| 1,1,1-Trichloroethane | ND | Q | 2.0 | |
| 1,1-Dichloropropene | ND | Q | 2.0 | |
| Carbon tetrachloride | ND | Q | 2.0 | |
| Benzene | ND | Q | 2.0 | |
| Dibromomethane | ND | Q | 2.0 | |
| 1,2-Dichloropropane | ND | Q | 2.0 | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Test results meet all requirements of NELAC (accredited by Florida DOH #E37645).*

**Reported:**
12/21/10 15:59

# Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780


## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **GW-2 + QC** | Lab Sample ID: | **SK01109-03** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/22/10 17:10 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 12:15 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Trichloroethene | ND | Q | 2.0 | |
| Bromodichloromethane | ND | Q | 2.0 | |
| cis-1,3-Dichloropropene | ND | Q | 2.0 | |
| 4-Methyl-2-pentanone (MIBK) | ND | Q | 2.0 | |
| trans-1,3-Dichloropropene | ND | Q | 2.0 | |
| 1,1,2-Trichloroethane | ND | Q | 2.0 | |
| Toluene | ND | Q | 2.0 | |
| 1,3-Dichloropropane | ND | Q | 2.0 | |
| 2-Hexanone (MBK) * | ND | Q | 2.0 | |
| Dibromochloromethane | ND | Q | 2.0 | |
| 1,2-Dibromoethane | ND | Q | 2.0 | |
| Tetrachloroethene | ND | Q | 2.0 | |
| 1,1,1,2-Tetrachloroethane | ND | Q | 2.0 | |
| Chlorobenzene | ND | Q | 2.0 | |
| Ethylbenzene | ND | Q | 2.0 | |
| Bromoform | ND | Q | 2.0 | |
| Styrene | ND | Q | 2.0 | |
| 1,1,2,2-Tetrachloroethane | ND | Q | 2.0 | |
| Xylenes, total | ND | Q | 2.0 | |
| 1,2,3-Trichloropropane | ND | Q | 2.0 | |
| Isopropylbenzene | ND | Q | 2.0 | |
| Bromobenzene | ND | Q | 2.0 | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Test results meet all requirements of NELAC (accredited by Florida DOH #E37645).*

**Reported:**
12/21/10 15:59

**Illinois Environmental Protection Agency Laboratory**
825 N. Rutledge Springfield, Illinois 62702 217.782.9780

## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **GW-3** | Lab Sample ID: | **SK01109-04** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/23/10 14:50 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 12:51 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Chloromethane | ND | | 2.0 | |
| Vinyl chloride | ND | | 2.0 | |
| Bromomethane | ND | | 2.0 | |
| Chloroethane | ND | | 2.0 | |
| Trichlorofluoromethane | ND | | 2.0 | |
| Acetone | ND | | 10 | |
| 1,1-Dichloroethene | ND | | 2.0 | |
| Methylene chloride | ND | | 5.0 | |
| **Carbon disulfide** | **2.7** | | 2.0 | |
| trans-1,2-Dichloroethene | ND | | 2.0 | |
| Methyl tert-butyl ether | ND | | 2.0 | |
| 1,1-Dichloroethane | ND | | 2.0 | |
| 2-Butanone (MEK) * | ND | | 10 | |
| cis-1,2-Dichloroethene | ND | | 2.0 | |
| Bromochloromethane | ND | | 2.0 | |
| Chloroform | ND | | 2.0 | |
| 2,2-Dichloropropane | ND | | 2.0 | |
| 1,2-Dichloroethane | ND | | 2.0 | |
| 1,1,1-Trichloroethane | ND | | 2.0 | |
| 1,1-Dichloropropene | ND | | 2.0 | |
| Carbon tetrachloride | ND | | 2.0 | |
| Benzene | ND | | 2.0 | |
| Dibromomethane | ND | | 2.0 | |
| 1,2-Dichloropropane | ND | | 2.0 | |

# Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780


## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **GW-3** | Lab Sample ID: | **SK01109-04** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/23/10 14:50 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 12:51 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Trichloroethene | ND | | 2.0 | |
| Bromodichloromethane | ND | | 2.0 | |
| cis-1,3-Dichloropropene | ND | | 2.0 | |
| 4-Methyl-2-pentanone (MIBK) | ND | | 2.0 | |
| trans-1,3-Dichloropropene | ND | | 2.0 | |
| 1,1,2-Trichloroethane | ND | | 2.0 | |
| Toluene | ND | | 2.0 | |
| 1,3-Dichloropropane | ND | | 2.0 | |
| 2-Hexanone (MBK) * | ND | | 2.0 | |
| Dibromochloromethane | ND | | 2.0 | |
| 1,2-Dibromoethane | ND | | 2.0 | |
| Tetrachloroethene | ND | | 2.0 | |
| 1,1,1,2-Tetrachloroethane | ND | | 2.0 | |
| Chlorobenzene | ND | | 2.0 | |
| Ethylbenzene | ND | | 2.0 | |
| Bromoform | ND | | 2.0 | |
| Styrene | ND | | 2.0 | |
| 1,1,2,2-Tetrachloroethane | ND | | 2.0 | |
| Xylenes, total | ND | | 2.0 | |
| 1,2,3-Trichloropropane | ND | | 2.0 | |
| Isopropylbenzene | ND | | 2.0 | |
| Bromobenzene | ND | | 2.0 | |



**Reported:**
12/21/10 15:59

# Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780


## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **GW-4** | Lab Sample ID: | **SK01109-05** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/23/10 17:45 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 13:26 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Chloromethane | ND | | 2.0 | |
| Vinyl chloride | ND | | 2.0 | |
| Bromomethane | ND | | 2.0 | |
| Chloroethane | ND | | 2.0 | |
| Trichlorofluoromethane | ND | | 2.0 | |
| Acetone | ND | | 10 | |
| 1,1-Dichloroethene | ND | | 2.0 | |
| Methylene chloride | ND | | 5.0 | |
| Carbon disulfide | ND | | 2.0 | |
| trans-1,2-Dichloroethene | ND | | 2.0 | |
| Methyl tert-butyl ether | ND | | 2.0 | |
| 1,1-Dichloroethane | ND | | 2.0 | |
| 2-Butanone (MEK) * | ND | | 10 | |
| cis-1,2-Dichloroethene | ND | | 2.0 | |
| Bromochloromethane | ND | | 2.0 | |
| Chloroform | ND | | 2.0 | |
| 2,2-Dichloropropane | ND | | 2.0 | |
| 1,2-Dichloroethane | ND | | 2.0 | |
| 1,1,1-Trichloroethane | ND | | 2.0 | |
| 1,1-Dichloropropene | ND | | 2.0 | |
| Carbon tetrachloride | ND | | 2.0 | |
| Benzene | ND | | 2.0 | |
| Dibromomethane | ND | | 2.0 | |
| 1,2-Dichloropropane | ND | | 2.0 | |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Test results meet all requirements of NELAC (accredited by Florida DOH #E37645).*

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## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **GW-4** | Lab Sample ID: | **SK01109-05** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/23/10 17:45 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 13:26 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Trichloroethene | ND | | 2.0 | |
| Bromodichloromethane | ND | | 2.0 | |
| cis-1,3-Dichloropropene | ND | | 2.0 | |
| 4-Methyl-2-pentanone (MIBK) | ND | | 2.0 | |
| trans-1,3-Dichloropropene | ND | | 2.0 | |
| 1,1,2-Trichloroethane | ND | | 2.0 | |
| Toluene | ND | | 2.0 | |
| 1,3-Dichloropropane | ND | | 2.0 | |
| 2-Hexanone (MBK) * | ND | | 2.0 | |
| Dibromochloromethane | ND | | 2.0 | |
| 1,2-Dibromoethane | ND | | 2.0 | |
| Tetrachloroethene | ND | | 2.0 | |
| 1,1,1,2-Tetrachloroethane | ND | | 2.0 | |
| Chlorobenzene | ND | | 2.0 | |
| Ethylbenzene | ND | | 2.0 | |
| Bromoform | ND | | 2.0 | |
| Styrene | ND | | 2.0 | |
| 1,1,2,2-Tetrachloroethane | ND | | 2.0 | |
| Xylenes, total | ND | | 2.0 | |
| 1,2,3-Trichloropropane | ND | | 2.0 | |
| Isopropylbenzene | ND | | 2.0 | |
| Bromobenzene | ND | | 2.0 | |



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## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **TRIP BLANK** | Lab Sample ID: | **SK01109-06** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/23/10 17:00 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 14:02 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Chloromethane | ND | | 2.0 | |
| Vinyl chloride | ND | | 2.0 | |
| Bromomethane | ND | | 2.0 | |
| Chloroethane | ND | | 2.0 | |
| Trichlorofluoromethane | ND | | 2.0 | |
| Acetone | ND | | 10 | |
| 1,1-Dichloroethene | ND | | 2.0 | |
| Methylene chloride | ND | | 5.0 | |
| Carbon disulfide | ND | | 2.0 | |
| trans-1,2-Dichloroethene | ND | | 2.0 | |
| Methyl tert-butyl ether | ND | | 2.0 | |
| 1,1-Dichloroethane | ND | | 2.0 | |
| 2-Butanone (MEK) * | ND | | 10 | |
| cis-1,2-Dichloroethene | ND | | 2.0 | |
| Bromochloromethane | ND | | 2.0 | |
| Chloroform | ND | | 2.0 | |
| 2,2-Dichloropropane | ND | | 2.0 | |
| 1,2-Dichloroethane | ND | | 2.0 | |
| 1,1,1-Trichloroethane | ND | | 2.0 | |
| 1,1-Dichloropropene | ND | | 2.0 | |
| Carbon tetrachloride | ND | | 2.0 | |
| Benzene | ND | | 2.0 | |
| Dibromomethane | ND | | 2.0 | |
| 1,2-Dichloropropane | ND | | 2.0 | |



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## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |
| Client Sample ID: | **TRIP BLANK** | Lab Sample ID: | **SK01109-06** |
| Matrix: | Water | Collected By: TONY WASILEWSKI | Date/Time Collected: 11/23/10 17:00 |
| Sample Type: | | Sample Depth: | Total Depth: |

### Volatiles Organic Compounds by Purge and Trap GC/MS

| | | | |
|---|---|---|---|
| Method: | 8260 | Prepared: | 12/07/10 11:00 |
| Units: | ug/L | Analyzed: | 12/07/10 14:02 |

| Analyte | Result | Qualifier | Reporting Limit | Regulatory Level |
|---|---|---|---|---|
| Trichloroethene | ND | | 2.0 | |
| Bromodichloromethane | ND | | 2.0 | |
| cis-1,3-Dichloropropene | ND | | 2.0 | |
| 4-Methyl-2-pentanone (MIBK) | ND | | 2.0 | |
| trans-1,3-Dichloropropene | ND | | 2.0 | |
| 1,1,2-Trichloroethane | ND | | 2.0 | |
| Toluene | ND | | 2.0 | |
| 1,3-Dichloropropane | ND | | 2.0 | |
| 2-Hexanone (MBK) * | ND | | 2.0 | |
| Dibromochloromethane | ND | | 2.0 | |
| 1,2-Dibromoethane | ND | | 2.0 | |
| Tetrachloroethene | ND | | 2.0 | |
| 1,1,1,2-Tetrachloroethane | ND | | 2.0 | |
| Chlorobenzene | ND | | 2.0 | |
| Ethylbenzene | ND | | 2.0 | |
| Bromoform | ND | | 2.0 | |
| Styrene | ND | | 2.0 | |
| 1,1,2,2-Tetrachloroethane | ND | | 2.0 | |
| Xylenes, total | ND | | 2.0 | |
| 1,2,3-Trichloropropane | ND | | 2.0 | |
| Isopropylbenzene | ND | | 2.0 | |
| Bromobenzene | ND | | 2.0 | |



**Reported:**
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## LABORATORY RESULTS

| | | | |
|---|---|---|---|
| Name: | SLAS MILAM GROUNDWATER | | |
| Project/Facility Number: | 1630450001 | Date Received : | 11/24/10 |
| Funding Code: | PR51 | Visit Number: | |
| Trip ID: | | Temperature C: | 4.00 |

### Notes and Definitions

| | |
|---|---|
| Q | Holding time exceeded. |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| * | Non-NELAP accredited |

Report Authorized by:

Sally Cleyston

Sally Cleyston
Sample Prep Unit Supervisor

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Test results meet all requirements of NELAC (accredited by Florida DOH #E37645).*

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